



SB-1141

First Year B. Pharm. Examination

March / April – 2011

PH-101 : Pharmaceutics-I
(Physical Pharmacy)

Time : Hours]

[Total Marks : 70

Instructions :

(1)

नीचे दशांशवैल निशानीवाणी विगतो उत्तरवडी पर अवश्य क्षपवी. Fillup strictly the details of signs on your answer book.	Seat No. :
Name of the Examination :	<input type="text"/>
<input type="text" value="F. Y. B. Pharm."/>	<input type="text"/>
Name of the Subject :	<input type="text"/>
<input type="text" value="PH-101 : Pharmaceutics-1"/>	<input type="text"/>
Subject Code No. : <input type="text" value="1"/> <input type="text" value="1"/> <input type="text" value="4"/> <input type="text" value="1"/>	<input type="text" value="Student's Signature"/>
Section No. (1, 2,.....) : <input type="text" value="1&2"/>	

- (2) All questions are compulsory.
- (3) Figures to the right indicate full marks.
- (4) Answer and submit both sections separately.

SECTION - I

- 1 Attempt any five of the followings : 10
 - (a) Define interfacial tension giving its significance.
 - (b) Describe applications of thixotropy.
 - (c) Enumerate factors affecting drug dissolution and discuss any one.
 - (d) Creaming is not instability of an emulsion. True or false justify.
 - (e) What is polymorphism ? Give its application in pharmacy.
 - (f) What are Eutectic mixtures ? Give an example.
 - (g) What is DSC ? Give its application in pharmacy.

- 2 Attempt any four of the following : 16
 - (a) Explain formation of electric double layer with neat labeled diagram.
 - (b) Discuss Gibb's adsorption isotherm. Write its application.
 - (c) Describe the sedimentation method for particle size determination.
 - (d) Write in brief about instability in emulsions.
 - (e) Discuss Fick's laws of diffusion.
 - (f) Differentiate flocculated and deflocculated suspensions.

SB-1141]

1

[Contd...

- 3** Attempt any three of the following : **9**
- (a) Enumerate the application of amphiphiles in pharmacy.
 - (b) Write a note on Cup and Bob viscometer.
 - (c) Explain various types of densities.
 - (d) Write a short note on liquid crystals.
 - (e) Discuss the USP dissolution apparatus type 1 with a suitable diagram.

SECTION - II

- 4** Define the following : (any **eleven**) **11**
- (a) Gold Number
 - (b) Sublimation
 - (c) Polymorphism
 - (d) Stokes' diameter
 - (e) Thixotropy
 - (f) Contact angle
 - (g) Sedimentation volume
 - (h) Rheopexy
 - (i) Colloids
 - (j) Coefficient of viscosity
 - (k) CMC
 - (l) Isotonic solutions
 - (m) Buffer capacity
 - (n) Eutectic mixtures
 - (o) Inclusion complexes.
- 5** Attempt any three of the following : **12**
- (a) Write a detail note on chelates with its formation and application.
 - (b) Enumerate the derived properties of powders. Discuss any one in detail.
 - (c) Discuss the application of protein binding.
 - (d) Describe various methods of colloids purification.
 - (e) Discuss the capillary rise method for determination of surface tension.
- 6** Attempt any two of the following : **12**
- (a) Write a brief note on controlled flocculation in suspension.
 - (b) Define interfacial tension. Discuss method to determine interfacial tension.
 - (c) Explain DLVO theory with energy curves.